What is claimed is:

1. A method for identifying clinical characteristics of a patient's pain, comprising the steps of:
    a. providing a first human body image without pain indicia recorded thereon;
    b. providing a second human body image substantially similar to said first human body image other than having recorded thereon readable indicia of a first patient's pain, said indicia being recorded on said second human body image at locations in correspondence with locations of said first patient's actual pain;
    c. digitizing said first human body image and said second human body image;
    d. coregistering said first human body image and said second human body image;
    e. comparing electronically said first human body image and said second human body image to determine at least one set of contiguous electronic locations of said pain indicia;
    f. determining a pain shape determined by the outline of said set of contiguous electronic locations;
    g. producing a database of said pain shapes for a plurality of patients known to belong to at least one clinical group identified by at least one of a diagnostic category or a disease severity category;
    h. comparing said first patient's said pain shape with said database; and
    i. judging based on said comparison if said first patient is included in at least one of said clinical groups.

2 A method as in claim 1 wherein said second human body image is created using a digitized version of said first human body image, said first human body image being electronically displayed for electronic recording of said pain indicia by a user.

3 A method as in claim 1 wherein a pain shape for said first patient is matched with at least one pain shape pattern characteristic of said at least one clinical group, comprising the further steps of:

repeating steps a – g on a plurality of patients in said at least one clinical group to create a respective first visual display derived from pain shapes characteristic of said clinical group;

providing a first copy of said first human body image to which said first visual display is added;

reviewing by said first patient said first copy; and

identifying if said first visual display corresponds to the location of pain experienced by said first patient.

4 A method as in claim 1 wherein a visual display of a pain shape is combined with other coded clinical information, comprising the further steps of:

determining a coding system for a second visual display of clinical information related to said pain shape and said first patient;

drawing by computer on a second copy of said digitized first human body image said pain shape for said first patient; and

drawing by computer on said second copy said second visual display that is visually linked to said pain shape for said first patient, whereby all relevant clinical information is combined in a single integrated display.

5 A method as in claim 1 wherein body-area-specific masks are used to focus body image analysis on particular body locations, comprising the further steps of:

providing at least one digitally marked body area on a third copy of said first human body image;

calculating the position of the centroid for said pain shape; and

comparing said digitally marked body area and said centroid position and categorizing said pain shape as a member of the class of pains in said body area if said centroid lies inside said digitally marked body area.

6 A method as in claim 1 wherein said coregistering is achieved using anatomic landmarks identified by visual inspection of a human body and also landmarks that are identified only by palpation of a human body, comprising the further steps of:

providing said first human body image having both visual and palpable types of anatomic landmarks; and

visually displaying a coding system containing instructions for identification of at least one said anatomic landmark.

7 A method as in claim 1 wherein centroids are used as markers of pain location, comprising the further steps of:

calculating a centroid based on the location of the outline of said pain shape; and

using said centroid to allocate said pain shape to a given human body location.

8 A method as in claim 1 wherein differentiation between said first human body image and said second human body image is obtained by using different colors that can be separately identified by computer, comprising the further steps of:

producing a said first human body image in which the body outline and other anatomic markings are printed in a first color that has a low value for at least one

of three constituent RGB colors (such as cyan with an RGB signature of 0, 255, 255) that is easily visible to a human being;

recording said readable indicia on said second human body image using a marking device that produces markings in a second color (such as black with an RGB signature of 0, 0, 0) that has a greater value than with the first color for at least one of said constituent RGB colors;

producing a computer-readable color digitized version of said second human body image; and

producing a digitized image confined to said readable indicia by having said computer select pixels for analysis based on differences in values between said constituent RGB colors in said color digitized version.

9 A method as in claim 1 wherein said pain indicia that have been improperly recorded are edited prior to identification of said electronic locations, comprising the further steps of:

analyzing said pain indicia on said second human body image to identify non-contiguous pain indicia in which all pixels are not contiguous;

identifying which of said non-contiguous pain indicia may properly be considered editable pain indicia; and

incorporating intervening pixels between said editable pain indicia with said editable pain indicia so as to form a single pain indicia object containing a contiguous set of pixels.

10 A method as in claim 1 wherein step h is performed by incorporating information on both pain location and pain quality.

11 A method as in claim 1 wherein said first human body image and said second human body image are based on a photograph of said first patient.

12 A method as in claim 1 wherein composite images are generated for a plurality of patients, comprising the steps of:

determining body locations of a plurality of said pain shapes;

determining a coding system of visual markers to provide information on said body locations of said pain shapes; and

providing a composite image in which said visual markers are added to a fourth copy of said first human body image so as to indicate the overall body location distribution of said pain shapes.

13 A method as in claim 12 wherein a smoothing of the composite image is obtained using parametric statistics, comprising the steps of:

calculating a meta-centroid for said pain shapes;

calculating the distance between said meta-centroid and the outline of each said pain shape along each radial from the meta-centroid outwards in one direction, disregarding both that portion of said outline that is on the other side of the meta-centroid and that portion of said outline that is the inner portion of the outline for an outline that does not encompass the meta-centroid;

calculating parametric statistics for said pain shapes for the aggregate of said distances for each said radial; and

providing a visual display on a fifth copy of said first human body image that shows the statistical likelihood, on the basis of parametric statistics, of a said pain shape occupying a given pixel at a given distance from the meta-centroid.

14 A method for mapping corresponding locations on a first human body image design and a second human body image design, comprising the steps of:

digitizing each said human body image design;

identifying common anatomic landmarks shared by said human body image designs;

interpolating between those landmarks that lie along the outlines of each human body image in each said human body image design, so as to map each pixel on said outline of said first human body image design to a pixel on said outline of said second human body image design; and

interpolating, using a plurality of said mapped pixels, so as to map each unmapped pixel in the interior of said human body image of the said first human body image design to a pixel in the interior of said human body image of said second human body image design.

15 A method as in claim 14 wherein said first human body image design uses a generic human body image, and said second human body image design uses a photographic image of said first patient.

16 A method as in claim 14 wherein said first human body image design uses a generic human body image, and said second human body image design uses a human body image based on the demographic group to which said first patient belongs.

17 A method as in claim 14 wherein a scale of linked human body images with different levels of anatomic detail are each mapped to the others, allowing a user to drill up or drill down through a plurality of human body images to record and display said pain shape at the desired level of detail.

18 A method as in claim 14 wherein the plurality of said pixels of said second human body image design include pixels that are themselves mapped to known areas of surface pain emanating from internal body structures.

19 A method as in claim 14 wherein said first human body image design is of the left side of a human body image, and said second human body image design is of the right side of a human body image.

20 A method as in claim 14 wherein said first human body image design and said second human body image design contain different body views that share pixels that are contiguous on the body surface, allowing pain shapes on said human body image designs to be combined as a single body area for analysis and display.